What is claimed is:

1. An optical information-recording medium comprising a substrate which is formed with a plurality of lands and grooves, and a recording layer and a reflective layer which are provided on the substrate, the grooves including:

a first groove;

a second groove which is formed with pits; and

a third groove which is formed with pits having widths narrower than those of the pits of the second groove, wherein:

the third groove is arranged between the first groove and the second groove.

2. The optical information-recording medium according to claim 1, wherein $Wg \leq Wpb \leq Wp$ is satisfied provided that Wg represents a half value width of the first groove, Wp represents a half value width of the pit of the second groove, and Wpb represents a half value width of the pit of the third groove.

3. The optical information-recording medium according to claim 1, wherein $Tg \leq Tpb \leq Tp$ is satisfied provided that Tg represents a recording layer recess depth ranging from an interface between the recording layer and

the reflective layer over a surface of the land to an interface between the recording layer and the reflective layer over the first groove, Tp represents a recording layer recess depth ranging from the interface between the recording layer and the reflective layer over the surface of the land to an interface between the recording layer and the reflective layer over the pit of the second groove, and Tpb represents a recording layer recess depth ranging from the interface between the recording layer and the reflective layer over the surface of the land to an interface between the recording layer and the reflective layer over the pit of the third groove.

4. The optical information-recording medium according to claim 1, wherein the pits, which are formed in the identical groove of the grooves, include a first pit and a second pit which has a length in a groove direction longer than that of the first pit, and $1 \leq W_2/W_1 < 1.2$ is satisfied provided that W_1 represents a maximum width in a radial direction of the substrate of the first pit, and W_2 represents a maximum width in the radial direction of the substrate of the second pit.

5. The optical information-recording medium according to claim 1, wherein the recording layer is formed of a dye.

6. The optical information-recording medium according to claim 5, wherein each of the first groove, the second groove, and the third groove is formed so that a groove depth is successively deepened and a groove width is successively widened in a direction from an inner side to an outer side of the optical information-recording medium.

7. The optical information-recording medium according to claim 2, wherein a ratio Wp/Wpb between the half value width Wp and the half value width Wpb satisfies $1.05 \leq Wp/Wpb \leq 1.15$.

8. An optical information-recording medium comprising a substrate which is formed with a plurality of lands and grooves, and a recording layer and a reflective layer which are provided on the substrate, the grooves including:

a first groove;

a second groove which has a width wider than that of the first groove; and

a third groove which is formed with pits, wherein:

the second groove is arranged between the first groove and the third groove.

9. The optical information-recording medium

according to claim 8, wherein $Wg \leq Wgb \leq Wp$ is satisfied provided that Wg represents a half value width of the first groove, Wgb represents a half value width of the second groove, and Wp represents a half value width of the pit of the third groove.

10. The optical information-recording medium according to claim 9, wherein a ratio Wgb/Wg between the half value width Wgb and the half value width Wg satisfies $1.05 \leq Wgb/Wg \leq 1.15$.

11. The optical information-recording medium according to claim 8, wherein $Tg \leq Tgb \leq Tp$ is satisfied provided that Tg represents a recording layer recess depth ranging from an interface between the recording layer and the reflective layer over a surface of the land to an interface between the recording layer and the reflective layer over the first groove, Tgb represents a recording layer recess depth ranging from the interface between the recording layer and the reflective layer over the surface of the land to an interface between the recording layer and the reflective layer over the second groove, and Tp represents a recording layer recess depth ranging from the interface between the recording layer and the reflective layer over the surface of the land to an interface between the recording layer and the reflective layer over the pit

of the third groove.

12. The optical information-recording medium according to claim 8, wherein the pits, which are formed in the identical groove of the grooves, include a first pit and a second pit which has a length in a groove direction longer than that of the first pit, and $1 \leq W_2/W_1 < 1.2$ is satisfied provided that W_1 represents a maximum width in a radial direction of the substrate of the first pit, and W_2 represents a maximum width in the radial direction of the substrate of the second pit.

13. The optical information-recording medium according to claim 8, wherein the recording layer is formed of a dye.

14. The optical information-recording medium according to claim 13, wherein the dye is an azo dye.

15. The optical information-recording medium according to claim 13, wherein each of the first groove and the third groove is formed so that a groove depth is continuously deepened and a groove width is continuously widened in a direction from an inner side to an outer side of the optical information-recording medium.

16. The optical information-recording medium according to claim 15, wherein $Wgi < Wgo \leq Wgb \leq Wp$ is satisfied provided that Wgi represents a half value width of the first groove positioned on the inner side of the optical information-recording medium, Wgo represents a half value width of the first groove positioned on the outer side of the optical information-recording medium, Wgb represents a half value width of the second groove, and Wp represents a half value width of the pit of the third groove.

17. The optical information-recording medium according to claim 16, wherein a ratio Wgo/Wgi between the half value width Wgi and the half value width Wgo satisfies $1.03 \leq Wgo/Wgi \leq 1.10$.

18. The optical information-recording medium according to claim 15, wherein a ratio dgo/dgi between a depth dgi and a depth dgo satisfies $1.00 < dgo/dgi \leq 1.10$ provided that dgi represents the depth of the first groove positioned on the inner side of the optical information-recording medium from a substrate surface, and dgo represents the depth of the first groove positioned on the outer side of the optical information-recording medium from the substrate surface.

19. The optical information-recording medium according to claim 15, wherein Tgi = Tgo < Tgb < Tp is satisfied provided that Tgi represents a recording layer recess depth ranging from an interface between the recording layer and the reflective layer over a surface of the land to an interface between the recording layer and the reflective layer over the first groove positioned on the inner side of the optical information-recording medium, Tgo represents a recording layer recess depth ranging from the interface between the recording layer and the reflective layer over the surface of the land to an interface between the recording layer and the reflective layer over the first groove positioned on the outer side of the optical information-recording medium, Tgb represents a recording layer recess depth ranging from the interface between the recording layer and the reflective layer over the surface of the land to an interface between the recording layer and the reflective layer over the second groove, and Tp represents a recording layer recess depth ranging from the interface between the recording layer and the reflective layer over the surface of the land to an interface between the recording layer and the reflective layer over the pit of the third groove.

20. A method for producing the optical information-recording medium as defined in claim 8, comprising:

exposing a photosensitive material with a pattern corresponding to a first groove, a second groove, and pits of a third groove by irradiating the photosensitive material formed on a master disk with three different exposure intensities;

developing the master disk after the exposure to form the pattern corresponding to the first groove, the second groove, and the third groove equipped with the pits;

forming a substrate with the master disk on which the pattern is formed; and

forming a recording layer and a reflective layer on the substrate.

21. The method for producing the optical information-recording medium according to claim 20, further comprising performing etching by RIE in the development.

22. The method for producing the optical information-recording medium according to claim 21, wherein the exposure is performed with the pattern corresponding to the first groove and the third groove by effecting radiation with an exposure intensity which is continuously changed in a direction from an inner side to an outer side of the master disk.

23. The method for producing the optical information-

recording medium according to claim 22, wherein the etching based on RIE is performed while changing a flow rate of a gas to be used for RIE between the inner side and the outer side of the master disk.

24. The method for producing the optical information-recording medium according to claim 20, wherein the exposure intensity is changed during the exposure with the pattern corresponding to the pits such that a first exposure intensity is firstly used, a second exposure intensity, which is lower than the first exposure intensity, is used thereafter, and then the exposure intensity is changed to the first exposure intensity.

25. The method for producing the optical information-recording medium according to claim 24, wherein periods, in which the exposure is performed with the first exposure intensity, are set to 1T to 1.5T respectively provided that T represents a clock cycle used when the optical information-recording medium is subjected to reproduction.

26. The method for producing the optical information-recording medium according to claim 20, further comprising performing the exposure with an exposure intensity of zero in addition to the exposure intensities during the exposure of the master disk.

27. An optical information-recording medium comprising a substrate which is formed with a plurality of lands and grooves, and a recording layer and a reflective layer which are provided on the substrate, the grooves including:

a first groove;

a second groove which has a width wider than that of the first groove;

a third groove which is formed with pits; and

a fourth groove which is formed with pits having widths narrower than those of the pits of the third groove, wherein:

the first to fourth grooves are arranged in an order of the first groove, the second groove, the fourth groove, and the third groove.

28. The optical information-recording medium according to claim 27, wherein $Wg \leq Wgb \leq Wpb \leq Wp$ is satisfied provided that Wg represents a half value width of the first groove, Wgb represents a half value width of the second groove, Wp represents a half value width of the third groove, and Wpb represents a half value width of the fourth groove.

29. The optical information-recording medium

according to claim 28, wherein a ratio Wgb/Wg between the half value width Wgb and the half value width Wg satisfies $1.03 \leq Wgb/Wg \leq 1.15$.

30. The optical information-recording medium according to claim 27, wherein the recording layer is formed of a dye.

31. The optical information-recording medium according to claim 30, wherein each of the first groove, the third groove, and the fourth groove is formed so that a groove depth is successively deepened and a groove width is successively widened in a direction from an inner side to an outer side of the optical information-recording medium.